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DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. 2002-NE-28-AD; Amendment 39-12956; AD 2002-23-12]

RIN 2120-AA64

Airworthiness Directives; Rolls-Royce Limited, Aero Division-Bristol, S.N.E.C.M.A. Olympus 593 Mk. 610-14-28 Turbojet Engines

AGENCY: Federal Aviation Administration, DOT.

ACTION: Final rule; request for comments.

SUMMARY: This amendment adopts a new airworthiness directive (AD) that is applicable to Rolls-Royce Limited, Aero Division-Bristol, S.N.E.C.M.A (RR) Olympus 593 Mk. 610-14-28 turbojet engines. This action requires a one-time fluorescent penetrant inspection (FPI) of certain rebroached stage 5 high pressure compressor (HPC) disks, inspecting for cracks, and if necessary, removing cracked disks from service. This amendment is prompted by a manufacturer's analysis that concluded that the rebroaching process failed to achieve the anticipated life before being rejected for cracks and that the original cracks are not being removed. The actions specified in this AD are intended to prevent failure of the HPC stage 5 disk which could result in an uncontained engine failure and damage to the airplane.

DATES: Effective January 17, 2003. The incorporation by reference of certain publications listed in the rule is approved by the Director of the Federal Register as of January 17, 2003.

Comments for inclusion in the Rules Docket must be received on or before March 3, 2003.

ADDRESSES: Submit comments in triplicate to the Federal Aviation Administration (FAA), New England Region, Office of the Regional Counsel, Attention: Rules Docket No. 2002-NE-28-AD, 12 New England Executive Park, Burlington, MA 01803-5299. Comments may be inspected at this location, by appointment, between 8:00 a.m. and 4:30 p.m., Monday through Friday, except Federal holidays. Comments may also be sent via the Internet using the following address: 9-ane-adcomment@faa.gov. Comments sent via the Internet must contain the docket number in the subject line.

The service information referenced in this AD may be obtained from Rolls-Royce Defence (Europe) Technical Publications Department, P.O. Box 3, Filton, Bristol BS34 7QE, England; telephone 011 7979 6060; Fax 011 7979 7234. This information may be examined, by appointment,

at the FAA, New England Region, Office of the Regional Counsel, 12 New England Executive Park, Burlington, MA; or at the Office of the Federal Register, 800 North Capitol Street, NW., suite 700, Washington, DC.

FOR FURTHER INFORMATION CONTACT: Glorianne Niebuhr, Aerospace Engineer, Engine Certification Office, FAA, Engine and Propeller Directorate, 12 New England Executive Park, Burlington, MA 01803-5299; telephone (781) 238-7132; fax (781) 238-7199.

SUPPLEMENTARY INFORMATION: The Civil Aviation Authority (CAA), which is the airworthiness authority for the United Kingdom (UK), notified the FAA that an unsafe condition may exist on Bae/SNIAS Concorde Type 1 airplanes with RR Olympus 593 Mk. 610-14-28 turbojet engines. The CAA advises that if the disks were not rebroached correctly, certain HPC stage 5 disks may fail to achieve their anticipated cyclic life limit before cracking. Service experience with HPC stage 6 disks that were rebroached using a similar process demonstrated that the disks failed to achieve the anticipated life limit before being rejected for cracks. Further investigation revealed that original cracks were not being removed by the rebroaching. Therefore, a review of the HPC stage 5 disks was done. The analysis indicated that certain HPC stage 5 disks needed to be inspected between specific cyclic intervals to ensure that they have no cracks and that they can then achieve their previously anticipated life. At the time the CAA AD was originally written, there were a number of uninspected disks. Currently, there are only two HPC stage 5 disks that have not been inspected.

Manufacturer's Service Information

RR has issued Olympus 593 MSB No. OL.593-72-8951-364, Revision 7, dated November 23, 2001, that specifies the inspection requirements for certain HPC stage 5 disks. The CAA classified this service bulletin as mandatory and issued AD 006-07-98 in order to ensure the airworthiness of these RR engines in the UK.

Differences Between the Manufacturers Service Information and This AD

RR has issued Olympus 593 MSB No. OL.593-72-9051-428, Revision 1, dated November 16, 2001, that requires disk P/N B510911, SN J14CA, to be inspected within 200 to 958 cycles-in-service (CIS) after rebroaching and disk P/N B510909, SN JZJ66, to be inspected within 200 to 931 CIS after rebroaching. However, since none of these engines are installed on airplanes of the U.S. registry, the FAA requires that they be inspected before further flight.

Bilateral Airworthiness Agreement

This engine model is manufactured in the UK, and is type certificated for operation in the United States under the provisions of section 21.29 of the Federal Aviation Regulations (14 CFR 21.29) and the applicable bilateral airworthiness agreement. Pursuant to this bilateral airworthiness agreement, the CAA has kept the FAA informed of the situation described above. The FAA has examined the findings of the CAA, reviewed all available information, and determined that AD action is necessary for products of this type design that are certificated for operation in the United States.

FAA's Determination of an Unsafe Condition and Required Actions

Although none of these affected engine models are used on any airplanes that are registered in the United States, the possibility exists that the engine models could be used on airplanes that are registered in the United States in the future. Since an unsafe condition has been identified that is likely to exist or develop on other RR Olympus 593 Mk. 610-14-28 turbojet engines of the same type

design, this AD is being issued to prevent failure of the HPC stage 5 disk, which could result in an uncontained engine failure and damage to the airplane. This AD requires a one-time fluorescent penetrant inspection (FPI) of certain rebroached HPC stage 5 disks, inspecting for cracks, and if necessary, removing cracked disks from service. The actions must be done in accordance with the service bulletin described previously.

Immediate Adoption of This AD

Since there are currently no domestic operators of this engine model, notice and opportunity for prior public comment are unnecessary. Therefore, a situation exists that allows the immediate adoption of this regulation.

Comments Invited

Although this action is in the form of a final rule that involves requirements affecting flight safety and, thus, was not preceded by notice and an opportunity for public comment, comments are invited on this rule. Interested persons are invited to comment on this rule by submitting such written data, views, or arguments as they may desire. Communications should identify the Rules Docket number and be submitted in triplicate to the address specified under the caption ADDRESSES. All communications received on or before the closing date for comments will be considered, and this rule may be amended in light of the comments received. Factual information that supports the commenter's ideas and suggestions is extremely helpful in evaluating the effectiveness of the AD action and determining whether additional rulemaking action would be needed.

Comments are specifically invited on the overall regulatory, economic, environmental, and energy aspects of the rule that might suggest a need to modify the rule. All comments submitted will be available, both before and after the closing date for comments, in the Rules Docket for examination by interested persons. A report that summarizes each FAA-public contact concerned with the substance of this AD will be filed in the Rules Docket.

Commenters wishing the FAA to acknowledge receipt of their comments submitted in response to this action must submit a self-addressed, stamped postcard on which the following statement is made: "Comments to Docket Number 2002-NE-28-AD." The postcard will be date stamped and returned to the commenter.

Regulatory Analysis

This final rule does not have federalism implications, as defined in Executive Order 13132, because it would not have a substantial direct effect on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government. Accordingly, the FAA has not consulted with state authorities prior to publication of this final rule.

The FAA has determined that this regulation is an emergency regulation that must be issued immediately to correct an unsafe condition in aircraft, and is not a "significant regulatory action" under Executive Order 12866. It has been determined further that this action involves an emergency regulation under DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979). If it is determined that this emergency regulation otherwise would be significant under DOT Regulatory Policies and Procedures, a final regulatory evaluation will be prepared and placed in the Rules Docket. A copy of it, if filed, may be obtained from the Rules Docket at the location provided under the caption ADDRESSES.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

Adoption of the Amendment

Accordingly, pursuant to the authority delegated to me by the Administrator, the Federal Aviation Administration amends part 39 of the Federal Aviation Regulations (14 CFR part 39) as follows:

PART 39–AIRWORTHINESS DIRECTIVES

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

2. Section 39.13 is amended by adding the following new airworthiness directive:

AIRWORTHINESS DIRECTIVE

Aircraft Certification Service
Washington, DC

U.S. Department
of Transportation
**Federal Aviation
Administration**

We post ADs on the internet at "www.faa.gov"

The following Airworthiness Directive issued by the Federal Aviation Administration in accordance with the provisions of Title 14 of the Code of Federal Regulations (14 CFR) part 39, applies to an aircraft model of which our records indicate you may be the registered owner. Airworthiness Directives affect aviation safety and are regulations which require immediate attention. You are cautioned that no person may operate an aircraft to which an Airworthiness Directive applies, except in accordance with the requirements of the Airworthiness Directive (reference 14 CFR part 39, subpart 39.3).

2002-23-12 Rolls-Royce Limited Aero Division-Bristol, S.N.E.C.M.A.: Amendment 39-12956. Docket No. 2002-NE-28-AD.

Applicability: This airworthiness directive (AD) is applicable to Rolls-Royce Limited, Aero Division-Bristol, S.N.E.C.M.A. (RR) Olympus 593 Mk. 610-14-28 turbojet engines with high pressure compressor (HPC) stage 5 disk part number (P/N) B510911, serial number (SN) J14CA and P/N B510909, SN JZJ66. These engines are installed on, but not limited to, BAe/SNIAS Concorde Type 1 airplanes.

Note 1: This AD applies to each engine identified in the preceding applicability provision, regardless of whether it has been modified, altered, or repaired in the area subject to the requirements of this AD. For engines that have been modified, altered, or repaired so that the performance of the requirements of this AD is affected, the owner/operator must request approval for an alternative method of compliance in accordance with paragraph (c) of this AD. The request should include an assessment of the effect of the modification, alteration, or repair on the unsafe condition addressed by this AD; and, if the unsafe condition has not been eliminated, the request should include specific proposed actions to address it.

Compliance: Compliance with this AD is required before further flight after the effective date of this AD, unless already done.

To prevent failure of the HPC stage 5 disk due to cracking, which could result in an uncontained engine failure and damage to the airplane, do the following:

(a) Before further flight, inspect HPC stage 5 disks P/N B510911, SN J14CA and P/N B510909, SN JZJ66, in accordance with Accomplishment Instructions 2.A.(1) through 2.A.(2) of Rolls-Royce (RR) Olympus 593 Mandatory Service Bulletin (MSB) OL.593-72-8951-364, Revision 7, dated November 23, 2001.

(b) If the stage 5 HPC disk is found cracked, it must be removed and replaced with a serviceable part.

Alternative Methods of Compliance

(c) An alternative method of compliance or adjustment of the compliance time that provides an acceptable level of safety may be used if approved by the Manager, Engine Certification Office. Operators must submit their requests through an appropriate FAA Principal Maintenance Inspector, who may add comments and then send it to the Manager, ECO.

Note 2: Information concerning the existence of approved alternative methods of compliance with this airworthiness directive, if any, may be obtained from the ECO.

Special Flight Permits

(d) Special flight permits may be issued in accordance with §§ 21.197 and 21.199 of the Federal Aviation Regulations (14 CFR 21.197 and 21.199) to operate the airplane to a location where the requirements of this AD can be done.

Documents That Have Been Incorporated by Reference

(e) The inspection must be done in accordance with Rolls-Royce Olympus 593 Mandatory Service Bulletin (MSB) OL.593-72-8951-364, Revision 7, dated November 23, 2001. This incorporation by reference was approved by the Director of the Federal Register in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. Copies may be obtained from Rolls-Royce Defence (Europe) Technical Publications Department, P.O. Box 3, Filton, Bristol BS34 7QE, England; telephone 011 7979 6060; Fax 011 7979 7234. Copies may be inspected, by appointment, at the FAA, New England Region, Office of the Regional Counsel, 12 New England Executive Park, Burlington, MA; or at the Office of the Federal Register, 800 North Capitol Street, NW, suite 700, Washington, DC.

Note 3: The subject of this AD is addressed in CAA airworthiness directive 006-07-98.

Effective Date

(f) This amendment becomes effective on January 17, 2003.

Issued in Burlington, Massachusetts, on November 15, 2002.
Mark C. Fulmer,
Acting Manager, Engine and Propeller Directorate, Aircraft Certification Service.
[FR Doc. 02-32888 Filed 12-31-02; 8:45 am]
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